Methods: We retrospectively reviewed vascular surgery patients undergoing thrombolysis between 2005 and 2013. Patients were allocated to the low-fibrinogen group if their fibrinogen level was <1.5 g/L during treatment or to the high-fibrinogen group. Demographics, bleeding complications, and technical and clinical success were statistically analyzed between the groups.

Results: A total of 49 patients (22 arterial and 27 venous), with a mean age of 52.0 ± 18.4 years, were included. Sixteen patients were allocated to the low-fibrinogen group and 26 to the high-fibrinogen group (fibrinogen levels were not measured in seven patients; none of these patients had any bleeding complications). Patients were significantly younger (41.1 ± 17.3 vs 56 ± 15.7 years; $P = .006$) and had a proportionately higher number of venous occlusive events (87.5% vs 42.6%; $P = .004$) in the low-fibrinogen group compared with the high-fibrinogen group. Other baseline characteristics, including gender, extremities affected, prothrombotic risk factors, contraindications to thrombolysis, baseline fibrinogen, international normalized ratio, partial thromboplastin time, and platelets were similar between the groups. The low-fibrinogen group used a larger total dose of tissue plasminogen activator (tPA; 40.7 ± 24.6 mg vs 21.9 ± 10.5 mg, $P = .009$) and had longer duration of tPA infusion (26.8 ± 12.9 hours vs 16.9 ± 6.6 hours; $P = .010$). The rates of major and minor bleeding were not significantly different between the low-fibrinogen vs high-fibrinogen groups (2 vs 0 cases of major bleed, respectively, $P = .139$; 1 vs 4 cases of minor bleed, respectively; $P = .633$). Secondary outcomes including technical and clinical success rate, in-hospital mortality, hospital length of stay, and secondary procedures were similar between groups.

Conclusions: A fibrinogen level of <1.5 g/L during thrombolysis was not associated with an increased risk of bleeding complications; this was despite a larger total dose and longer duration of tPA infusion used.

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Feasibility and Outcomes of Outpatient and Short-Stay EVAR: A Retrospective Study and Review of the Literature

Aaron Lo A,[1] Ivica Vucemilo,[1,2] Sean Crawford,[1] Chris Werneck,[1,2] William Johnson,[1,2] Marc Pope[1,2]. [1]Division of Vascular Surgery, University of Toronto, Toronto, Ontario, Canada; [2]Trillium Health Partners, Mississauga Hospital, Toronto, Ontario, Canada

Objectives: The aim of this study was to determine the length of stay in our cohort of patients who underwent endovascular aortic aneurysm repair (EVAR) and to identify patient characteristics suitable for same-day or short-term discharge. We also conducted a review of the literature examining the evidence for safety and efficacy of ambulatory and short-stay EVAR.

Methods: A retrospective analysis of consecutive patients who underwent elective EVAR by three vascular surgeons in our institution since April 2011 until March 2013 was conducted. Patient demographics, comorbidities, aneurysm anatomy, length of stay, and complications were analyzed. The literature review identified four articles on outpatient or short-stay EVAR.

Results: During the study period, 162 patients underwent elective EVAR and 138 were included in the analysis (24 patients were excluded due to insufficient data, aneurysm rupture, or thoracic endovascular aortic repair). Seven patients (5.1%) were discharged the same day (SD) of procedure, 81 patients (58.7%) were discharged on postoperative day (POD) 1, and 50 patients (36.2%) were discharged on POD2 or longer (standard group). The standard group was significantly older (78.44 ± 8.32 years) than the POD1 and SD groups (72.9 ± 8.41 and 71.3 ± 11.2, respectively; $P = .0004$). Mean aneurysm size was 54 ± 2.98 mm for the SD group, 57 ± 9.57 mm for POD1 group, and 59 ± 11.29 mm for the standard group. The 30-day mortality was zero in all three groups. The procedures in all patients (100%) in the SD group, 70 patients (86%) discharged on POD1, and 26 patients (52%) in the standard group were performed fully percutaneously ($P < .0001$). Percutaneous arterioplasty device failure, thus necessitating a femoral cutdown, occurred in eight patients (9.8%) in the POD1 group and in eight patients (16%) in the standard group ($P = .33$). All groups had similar baseline comorbidities (hypertension, hyperlipidemia, chronic renal failure, diabetes mellitus, chronic obstructive pulmonary disease; not significant [NS]). Ninety-six percent of all procedures were performed with a spinal anesthetic. Reasons for prolonged hospital stay included urinary retention, postimplantation syndrome, symptomatic aneurysm, or insertion of aortouniiliac stent with cross-femoral bypass. Readmission to the hospital ≤30 days of EVAR was zero in SD group patients, four patients (5%) in the POD1 group, and three patients (6%) in the standard group (NS). The 30-day complication rate was 5% in the POD1 group and 20% in the standard group ($P = .0069$).

Conclusions: Discharging patients the SD overnight after elective EVAR is feasible and safe in patients with acceptable medical risk, good baseline functional capacity, and who have undergone uncomplicated aneurysm repair. The literature shows that discharge ≤24 hours post-EVAR is feasible in one-third of patients. Future prospective studies, including cost analysis, will be undertaken to validate these encouraging data.

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Late Endograft Explantation: A Single-Center Case Series and Systematic Literature Review

Sean Crawford, Ivica Vucemilo, Aaron Lo, Chris Werneck, William Johnson, Marc Pope. Trillium Health Centre, Mississauga, Ontario; University of Toronto, Toronto, Ontario, Canada

Objectives: Over the last decade the use of endografts for the repair of abdominal aortic aneurysm has steadily increased. Despite improvements in endograft device technology, we continue to see complications that require reintervention. Here we present a systematic literature review of the indication for late endograft explants as well as a small case series of late endograft explants.

Methods: We conducted a retrospective case series of three endograft explants at a single center during a 3-year period. Additionally, systematic literature review of the PubMed database with the search terms (explant *or* late conversion) *and* (endograft *or* EVAR) was undertaken, with interest in indications for explantation and overall outcome after explantation.

Results: We present three cases of late surgical conversion after endovascular aneurysm repair (EVAR) repair of abdominal aortic aneurysm: (1) an 88-year old woman with a late type I endoleak and proximal graft migration 18 months post-EVAR; (2) a 66-year-old man with a methicillin-resistant *Staphylococcus aureus* infected endograft 2 years post-EVAR; and (3) a 64-year-old man with an acute occlusion of his endograft 6 years post-EVAR. A systematic review of the literature revealed 478 reported cases of late endograft explantation. The predominant indication for explantation was endoleak, representing 58% (n = 277) of endograft explants (type I, 106; type II, 59; type III, 41; type V, 5; multiple endoleaks, 5; undefined, 62). Other indications for explant included infection 21% (n = 100), occlusion 5.2% (n = 25), aortoenteric fistula 2.7% (n = 13) and claudication 1% (n = 5). Of the reported cases, 11% presented as ruptured AAA. Where reported, elective 30-day mortality ranged from 0% to 10%, and nonelective 30-day mortality ranged from 19% to 53%.

Conclusions: The primary reported indication for late open conversion was type I endoleaks, followed closely by infection. Although these can be technically challenging procedures, elective open conversion comes with a low mortality rate relative to urgent procedures. Nonadherence to manufacturers' recommendation for endograft use and late aortic remodeling could explain large number of endoleaks noted.

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In Situ Reconstruction With Custom-Made Bovine Pericardial Grafts for Aortic Graft Infections and Infected Aneurysm: A Case Series

Bojana Radovanovic, Bernard Montreuil, Miguel Chaput, Rafik Ghali. Division of Vascular Surgery, Université de Montréal, Montréal, Québec, Canada

Objectives: Prosthetic vascular infection is an uncommon but devastating event, occurring after ~ <0.1% to 5% of operations and developing months to years after the initial implantation. Similarly, mycotic aneurysms occur rarely but still carry a 25% mortality rate. Both entities may be challenging to eradicate. Therapeutic options are limited. Complex surgical procedures with wide debridement are often required, and outcomes are variable. This study evaluated the use of in situ reconstruction with custom-made bovine pericardial grafts as an alternative to in situ autologous vein graft, prosthetic grafts, and cryopreserved arterial homografts for the treatment of aortic graft infections and infected aortic aneurysms.

Methods: Between 2009 and 2014, eight patients (50% men; age range, 51-84 years) with prosthetic graft infection (n = 6) or thoracoabdominal mycotic aneurysm (n = 2) were treated with complete prosthesis or aneurysm resection, together with wide local debridement and arterial